

Appln No. 10/613,494
Amdt date December 13, 2005
Reply to Office action of September 20, 2005

REMARKS/ARGUMENTS

Claim 1 - 18 were pending when the application was last examined of which claims 1, 7, and 15 were independent. Claims 1, 7, and 15 are amended. Claims 3 and 8 are canceled. Claims 1, 2, 4 - 7, and 9 - 18 are now pending.

The Examiner has rejected Claims 1, 2, 6, 7, 9, 10, 14, 15, and 16 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent Application Publication No. 2002/0175883 to Onozawa. Further, the Examiner has also rejected Claims 3 and 8 under 35 U.S.C. §103 as being unpatentable over Onozawa, Claims 4, 11, 12, 17, and 18 over Onozawa in view of U.S. Patent Application Publication 2003/0122735 to Huang, and Claims 5 and 13 over Onozawa in view of U.S. Patent Application Publication 2002/0033675 to Kang.

However, the current Application claims priority to Korean Patent Application No. 2002-39713 that was filed on July 9, 2002. Accordingly, the Applicant believes that Onozawa that was filed before but published after this priority date would not constitute a 102(a) reference, rather a possible 102(e) reference, and that Huang that was filed after the priority date would not be a valid reference against the current Application.

In any event, the Applicant's amended Claim 1 now calls for "wherein the third voltage is substantially a middle voltage between the first voltage and the second voltage." Canceled

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claim 3 included similar language and was rejected by the Examiner as obvious over Onozawa.

On page 7 of the Office Action, the Examiner stated that Onozawa fails to indicate that the third voltage is substantially a middle voltage between the first voltage and the second voltage. The Examiner, however, continues that figure 3c of Onozawa discloses a circuit that can use a transistor with a voltage rating of the sustain voltage even when a voltage ($V_w >> V_{s1}$ or V_{s2}) greater than the sustain voltage is applied to the sustain electrodes. The Examiner finds it obvious that the circuit of Onozawa would operate whether the sustain voltage (V_w) is greater than or less than the sustain voltage (V_{s1} or V_{s2}). The Applicant respectfully disagrees.

As the Examiner has pointed out, the third voltage of Onozawa, V_w , is a very large voltage. This large voltage is intended to increase the speed of the operation of the switches while the circuit is shielding the switches from adverse effects of the large voltage V_w . If V_w is replaced with a voltage between $+V_{s1}$ and $-V_{s2}$, for example if $V_w=0$, then the circuit of figure 3C of Onozawa does not accomplish any of what it sets out to accomplish. When SW1 is closed, the voltage being applied to Q21 is $V_{s1}+V_{s2}$ and when SW1 is opened and SW2 is closed, the same voltage of $V_{s1}+V_{s2}$ remains until it drops to just V_{s1} . The user of Onozawa has no incentive to apply a low voltage to V_w .

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Moreover, circuit elements used in figure 3C of Onozawa will have different ratings. For example, the capacitor C of Onozawa must have a large capacitance value to handle the charge of $V_{s1}+V_{s2}+V_w$ with V_w being a very large voltage. On the contrary, with V_w being a voltage between V_{s1} and $-V_{s2}$, the sum of three voltages may be less than the original sum of $V_{s1}+V_{s2}$. Therefore, using a V_w between V_{s1} and $-V_{s2}$ is contraindicated by the components used in Onozawa. Accordingly, the fact that the "third voltage" of Claim 1 is a voltage between the other two voltages is not obvious from the teachings of Onozawa where V_w is a very large voltage and the circuit is designed to handle this very large voltage and in fact take advantage of it.

Accordingly, the Applicant submits that Claim 1 is neither anticipated by Onozawa under 35 U.S.C. §102 nor obvious under 35 U.S.C. §103 in view of this reference. Claim 1 is therefore patentable over Onozawa.

Claims 2, and 4 - 6 are dependent on Claim 1. As such, these claims are believed allowable based upon Claim 1.

The Applicant's amended Claim 7 calls for "wherein the third voltage is substantially a middle voltage between the first voltage and the second voltage." The Applicant submits that the invention as claimed in Claim 7 is neither taught, described or suggested in Onozawa. Arguments similar to the argument presented for Claim 1, may be presented in traverse of

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the rejection of Claim 7. Accordingly, the Applicant submits that Claim 7 is patentable over Onazawa.

Claims 9 - 14 are dependent on Claim 7. As such, these claims are believed allowable based upon Claim 7.

The Applicant's amended Claim 15 calls for "the third voltage being substantially between the first voltage and the second voltage." The Applicant submits that the invention as claimed in Claim 15 is neither taught, described or suggested in Onozawa. Arguments similar to the argument presented for Claim 1, may be presented in traverse of the rejection of Claim 15. Accordingly, the Applicant submits that Claim 15 is patentable over Onozawa.

Claims 16 - 18 are dependent on Claim 15. As such, these claims are believed allowable based upon Claim 15.

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Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the cited references and that all the rejections to the claims have been overcome. Reconsideration of the above Application is requested.

Respectfully submitted,
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